

REMARKS

In the Office Action of June 21, 2008, the drawings filed on June 1, 2007 were objected to by the Draftsperson because lines, numbers & letters are allegedly not uniformly thick and well defined, clean, durable and block (poor line quality) for Fig. 1. The specification was also objected to because the title of the invention is allegedly not descriptive. In addition, claims 1-4, 6, 7 and 10 were rejected under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the written description requirement because allegedly there is no support for the limitation of “*wherein the shield has a two-stepped structure in the extension area comprising a first step and a second step, each of the first step and the second step having a height not substantially less than a thickness of said shield,*” as recited in claim 1. Claims 1-4, 6, 7 and 10 were also rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In particular, the term “substantially” in claims 1 and 4 allegedly causes the claims to be vague and unclear and leaves one of ordinary skill in the art in doubt as to the meaning of the claimed subject matter to which it refers, thereby rendering the definition of the subject matter of the claims unclear. Also, there is allegedly insufficient antecedent basis for the term “interfaces” in claim 4 and the term “the ratio” in claim 7.

The Office Action has also rejected claims 1-3 and 10 under 35 U.S.C. 102(b) as allegedly being anticipated by U.S. Patent Application Number 2002/0102800 A1 (“Van Den Heuvel”). In addition, claims 1, 3, 4, 6, 7 and 10 were rejected under 35 U.S.C. 102(b) as allegedly being anticipated by U.S. Patent No. 6,545,316 (“Baliga”). Furthermore, claims 1 and 10 were rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Applicant Admitted Prior Art (“AAPA”).

With respect to the drawing objection, Applicants hereby submit a replacement sheet of drawings for Fig. 1 having proper line quality. As such, Applicants respectfully request that the drawing objection be withdrawn.

With respect to the specification objection, Applicants respectfully assert that the current title is clearly indicative of the invention to which the claims are directed. As such, Applicants respectfully request that the specification objection be withdrawn.

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With respect to the Section 112, first paragraph, rejections, Applicants have removed the limitation of “*each of the first step and the second step having a height not substantially less than a thickness of said shield*” in claim 1. Thus, these rejections are no longer applicable. As such, Applicants respectfully request that the
10 Section 112, first paragraph, rejections of claims 1-4, 6, 7 and 10 be withdrawn.

With respect to the Section 112, second paragraph, rejections, Applicants have removed the term “*substantially*” in both claims 1 and 4. Applicants have also amended claim 7 by replacing the term “*the ratio*” to “*a ratio*.” Thus, these rejections
15 are no longer applicable to claims 1, 4 and 7. However, with respect to claim 4, Applicants respectfully assert that there is no issue of antecedent basis for the term “*interfaces*” since this term has not been previously introduced and the term is not preceded by “the” or “said”. As such, Applicants respectfully request that the Section 112, second paragraph, rejections of claims 1-4, 6, 7 and 10 be withdrawn.

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With respect to Section 102 rejections of claims 1-4, 6, 7 and 10, Applicants have amended the independent claim 1 to more clearly distinguish the claimed invention from the cited references. As amended, the independent claim 1 recites in part “*the first step and the second step having a combined height shorter than a
25 height of the gate electrode,*” which is not disclosed in AAPA and the cited references of Van Den Heuvel and Baliga. Thus, the amended independent claim 1 is not anticipated by AAPA, Van Den Heuvel or Baliga. Support for the amendment of claim 1 can be at least found in Fig. 2 of the current application. Claim 5 has also been amended to correct minor errors. Applicants have also added claim 12, which
30 recites limitations not disclosed in AAPA, Van Den Heuvel or Baliga, and have canceled claim 11. In view of the claim amendments and the following remarks,

Applicants respectfully request that the pending claims 1-10 and 12 be allowed.

A. Patentability of Amended Independent Claim 1

5 As amended, the independent claim 1 recites in part “*the first step and the second step having a combined height shorter than a height of the gate electrode,*” which is not disclosed in AAPA, Van Den Heuvel or Baliga. Thus, the amended independent claim 1 is not anticipated by AAPA, Van Den Heuvel or Baliga. As such, Applicants respectfully request that the amended independent claim 1 be
10 allowed.

 A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053
15 (Fed. Cir. 1987).

 The Office Action on page 6 states that “the topmost portion of shield 50 is being considered the second step” with respect to AAPA. Then, the height of the entire shield 50 is the combined height of first and second step of the shield. Clearly,
20 the height of the entire shield 50 is not shorter than the height of the gate electrode 43. Thus, AAPA does not disclose the limitation of “*the first step and the second step having a combined height shorter than a height of the gate electrode,*” as recited in the amended independent claim 1.

25 Similarly, the Office Action on page 5 states that “the topmost portion of shield 27 is being considered the second step” with respect to Van Den Heuvel. Then, the height of the entire shield 27 is the combined height of first and second step of the shield. Clearly, the height of the entire shield 27 is not shorter than the height of the gate electrode 1. Thus, Van Den Heuvel does not disclose the limitation of “*the first step and the second step having a combined height shorter than a height of the gate electrode,*” as recited in the amended independent claim 1. These remarks are
30 also applicable to the cited reference of Baliga.

Since AAPA, Van Den Heuvel and Baliga do not disclose the claimed limitation of “*the first step and the second step having a combined height shorter than a height of the gate electrode*,” the amended independent claim 1 is not anticipated by AAPA, Van Den Heuvel or Baliga. Thus, Applicants respectfully request that the amended independent claim 1 be allowed.

B. Patentability of Dependent Claims 2-10 and 12

Each of the dependent claims 2-10 and 12 depends on the amended independent claim 1. As such, these dependent claims include all the limitations of the amended independent claim 1. Therefore, Applicants submit that these dependent claims are allowable for at least the same reasons as the amended independent claim 1.

As an example, the new dependent claim 12 recites “*wherein the first step and the second step are situated such that an upper surface of each of the first and second steps is located a level closer to the semiconductor substrate than an upper surface of the gate electrode*,” which are not disclosed in AAPA, Van Den Heuvel or Baliga. Thus, the dependent claim 12 is not anticipated by AAPA, Van Den Heuvel or Baliga.

Applicants respectfully request reconsideration of the claims in view of the remarks made herein. A notice of allowance is earnestly solicited.

Respectfully submitted,
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Date: June 21, 2008

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